Health Care Financing Program Statistics

Medicare: Use of Hospital Outpatient Services by the Disabled, 1975

PUBS
RA
412
.3
M4331
1975h hosp.
outpatient
svcs. use

Published by the Health Care Financing Administration
Office of Research, Demonstrations, and Statistics

Health Care Financing Program Statistics

The Health Care Financing Administration was established to combine health financing and quality assurance programs into a single agency. HCFA is responsible for the Medicare program, Federal participation in the Medicaid program, the Professional Standards Review Organization program, and a variety of other health care quality assurance programs.

The mission of the Health Care Financing Administration is to promote the timely delivery of appropriate, quality health care to its beneficiaries—approximately 47 million of the nation's aged, disabled, and poor. The Agency must also ensure that program beneficiaries are aware of the services for which they are eligible, that those services are accessible and of high quality, and that Agency policies and actions promote efficiency and quality within the total health care delivery system.

HCFA's Office of Research, Demonstrations, and Statistics (ORDS) conducts studies and projects that demonstrate and evaluate optional reimbursement, coverage, eligibility, and management alternatives to the present Federal programs. ORDS also assesses the impact of HCFA programs on health care costs, program expenditures, beneficiary access to services, health care providers, and the health care industry. In addition, ORDS monitors national health care expenditures and prices and provides actuarial analyses on the costs of current HCFA programs as well as the impact of possible legislative or administrative changes in the programs.

Medicare ***Program Statistics*** present detailed reports on Medicare enrollment, providers, and the use of reimbursement for covered services. Medicare enrollment data report the number of persons insured under Part A and Part B of the Medicare program by age, race, sex, and place of residence. Provider statistics consist of information on the number, distribution, and characteristics of hospitals, skilled nursing facilities, home health agencies, and independent laboratories certified to furnish and receive payment for covered health services to Medicare beneficiaries.

RA
412.3
.M4331
1975h
hosp.
outpatient
svcs. use
c.2

Medicare: Use of Hospital Outpatient Services by the Disabled, 1975

Prepared by: Laurence Abramson
Martin Ruther
Herbert A. Silverman

Published by
Department of Health and Human Services
Health Care Financing Administration
Office of Research, Demonstrations,
and Statistics

Contents

	Page
I. Introduction	
Overview	1
Relationship of Hospital Outpatient Benefits to Other Medicare Benefits	1
Measures and Methods of Comparison	2
Organization of the Report	2
Highlights: Beneficiaries Without End-Stage Renal Disease	2
Highlights: Beneficiaries with End-Stage Renal Disease	4
II. Hospital Outpatient Use and Charges, 1975: Disabled Beneficiaries Without ESRD	4
Variation by Age, Race, and Sex	4
Variation by Residence	5
Variation by Type of Service	5
III. Clinic and Emergency Room Visits, 1975	9
Variation by Age and Sex	9
Variation by Race and Type of County	9
IV. Differences in the Use of Ambulatory Medical Services, by Race	13
V. Beneficiaries with End-Stage Renal Disease	16
VI. Conclusions	17
VII. Appendices	
A. HCFA-1483	19
B. Sources and Limitations of Hospital Outpatient Data	20
C. Sources and Limitations of Current Medicare Survey Data	23
VIII. General Tables	
1. Use of Hospital Outpatient Services by Disabled Beneficiaries Without End-Stage Renal Disease: Users, Charges, and Reimbursement by Age, Sex, and Race, 1975	5
2. Use of Hospital Outpatient Services by Disabled Beneficiaries Without End-Stage Renal Disease: Users, Charges, and Reimbursement by Residence, 1975	6
3. Use of Hospital Outpatient Services by Disabled Beneficiaries Without End-Stage Renal Disease: Number and Percent of Distribution of Users by Type of Service, Sex, and Race, 1975	8
4. Use of Hospital Outpatient Services by Disabled Beneficiaries Without End-Stage Renal Disease: Amount and Percent Distribution of Charges by Type of Services, Sex, and Race, 1975	10
5. Use of Hospital Outpatient Clinic and Emergency Room Services by Disabled Beneficiaries Without End-Stage Renal Disease: Users, Visits, and Charges, 1975	11
6. Use of Hospital Outpatient Clinic Services by Disabled Black and White Beneficiaries Without End-Stage Renal Disease: Enrolled Beneficiaries, Users, Visits, and Charges by Residence, 1975	12
7. Use of Hospital Emergency Room Services by Black and White Beneficiaries Without End-Stage Renal Disease: Users, Visits, and Charges by Residence, 1975	14
8. Use of Physician and Outpatient Services and SMI Reimbursement on Behalf of Disabled Beneficiaries Without End-Stage Renal Disease, by Race, 1975	15
9. Measures of Use of Physician Services, by Race, 1975	15
10. Use of Hospital Outpatient Services by Disabled Persons with End-Stage Renal Disease and Persons Eligible Solely Because of End-Stage Renal Disease: Users, Charges, and Reimbursement by Sex, Race, and Region, 1975	17
11. Use of Hospital Outpatient Services by Disabled Persons with End-Stage Renal Disease and Persons Eligible Solely Because of End-Stage Renal Disease: Users and Charges by Type of Service, 1975	18

Introduction

Overview

This report is the first study published by the Health Care Financing Administration on the use of hospital outpatient services by disabled Medicare enrollees. The report focuses separately on two groups of disabled enrollees: those without end-stage renal disease (ESRD) and those with ESRD. Medicare coverage of these two groups began on July 1, 1973. ESRD patients are discussed separately because they use hospital outpatient services primarily for renal dialysis treatment, and their patterns of use, charges, and reimbursement differ significantly from those of disabled enrollees without ESRD.

Virtually all disabled enrollees are under 65 years of age, except for a very small number of persons with ESRD who do not have the work requirements to qualify for Medicare benefits at age 65. On July 1, 1975, 1,938,333 disabled enrollees were covered under Supplemental Medical Insurance (SMI), not including those with ESRD. Enrollment as of July 1 is typically used to represent the average monthly enrollment for the year. However, because persons with ESRD are high users of hospital outpatient services, for this group it is more appropriate to count all persons enrolled during the year to avoid distortions in measuring the proportion of beneficiaries using services or the amounts reimbursed per beneficiary. In 1975, 25,635 beneficiaries with ESRD were enrolled in SMI at any time during the year. We will discuss these figures in more detail in the section on the use of hospital outpatient services by ESRD enrollees.

Among persons without ESRD, there are significant differences between blacks and whites in the use of hospital outpatient services. These differences reflect the different sources from which blacks and whites receive ambulatory medical care services. In addition to the data derived from the program's administrative files, we are using data from the Current Medicare Survey of 1975 to examine these differences in detail.

Relationship of Hospital Outpatient Benefits to Other Medicare Benefits

The Medicare program consists of two parts—hospital insurance (HI) also known as Part A, and supplementary medical insurance (SMI), also referred to as Part B.[1] The HI program pays for inpatient care provided by hospitals, skilled nursing facilities, and for post-hospital home health services provided by home health agencies for the treatment of the condition that required hospitalization. The SMI program provides coverage for medical services and supplies furnished by physicians or others in connection with physicians' services, outpatient services, and home health services. In addition to the diagnostic and therapeutic services furnished by hospital outpatient departments, the SMI outpatient benefit covers services furnished by physician-directed clinics, community mental health centers, rural health clinics, and free-standing renal dialysis centers.

As shown in the following table, outpatient services constituted a significant proportion of the benefits paid by the Medicare Program in 1975 on behalf of disabled beneficiaries, particularly for those with ESRD.

Type of Service	*Reimbursements* Without ESRD Amount (000)	Percent	With ESRD Amount (000)	Percent
All Covered Services	$1,214,628	100.0	$294,215	100.0
Hospital Insurance	908,435	74.8	78,620	26.7
Inpatient Hospital Services	889,716	73.3	78,230	26.6
Skilled Nursing Facility and Home Health Agency Services	18,719	1.5	390	0.1
Supplementary Medical Insurance	306,193	25.2	215,592	73.3
Physician and Other Medical Services	253,270	20.9	41,980	14.3
Outpatient Services	47,670	3.9	173,545	59.0
Home Health Agency Services	5,253	0.4	67	[1]

[1] Less than 0.05 percent.

Diagnostic hospital outpatient services consist of medically necessary examinations and tests that aid in assessing medical conditions or identifying diseases. Therapeutic services are those that aid a physician in treating patients and must be incidental to a physician's services. Covered hospital outpatient services include the use of hospital facilities, the services of nurses, psychologists, technicians, laboratory and radiological services, drugs, and the use of supplies and equipment. Outpatient physical therapy and speech pathology are also covered.

For billing purposes, physicians' services to patients in hospital outpatient departments consist of two components: the "hospital component" and the "professional component," the latter generally being the services of the physician. The hospital outpatient bill generally requests payment for only the hospital component of the outpatient services, as noted previously. The hospital outpatient bill does not usually include the physician's services except if the service is rendered by an intern or resident, or if the service is rendered by a physician who has agreed to have the hospital bill for his services Radiologists and

---

This report was written by Laurence Abramson, Martin Ruther, and Herbert A. Silverman, Program Statistics Branch, Division of Beneficiary Studies, Office of Research, Health Care Financing Administration. It is one of a series prepared in the Office of Research, Judith Lave, Director, to provide a description and analysis of the use and cost of health care benefits furnished to the beneficiaries of the Medicare and Medicaid programs administered by the Health Care Financing Administration. This report was written under the administrative direction of Allen Dobson, Director, Division of Beneficiaries Studies.

[1] For a more detailed summary of the Medicare program covering such topics as eligibility, and the method of determining premiums and covered services, see Health Care Financing Administration, Office of Research, Demonstrations and Statistics; Medicare: Section 1.1, Reimbursement by State and County, Washington, D.C., 1978.

pathologists often have these agreements with the hospital. Usually, physicians bill for their services separately. The specific arrangement between each physician and hospital cannot be generalized across the program. This report does not contain physician services bill information because such program data are not currently linked to outpatient data on a unit record basis.

Generally, the SMI program pays for 80 percent of reasonable charges for covered physician services and most other medical services, after the beneficiary has paid the applicable deductible. Since 1973, the annual SMI deductible has been the first $60 of reasonable charges. The hospital outpatient department is considered a cost center on cost reports submitted by hospitals at the end of the fiscal year. As for the other cost centers, Medicare reimbursement is based on reasonable cost of covered services furnished to Medicare beneficiaries. The hospital charges are for services the patient received. The patient is liable for any unmet part of the deductible and for 20 percent of any charges thereafter. The revenues collected by the hospital from Medicare beneficiaries for covered outpatient services are used to defray the costs of outpatient services reimbursed by the program.

The hospital submits a bill to the Medicare program for all patients who use hospital outpatient services. Therefore, the Medicare files contain a record of all beneficiaries who used covered outpatient services and the amount of charges incurred, whether the patient paid none, all, or part of the bill, or whether any reimbursements are payable by the program. The utility of using charges for comparisons will be discussed further in the analysis section.

Measures and Methods of Comparison

Three basic measures of service use are employed in this study: (1) the proportion of beneficiaries who used covered hospital outpatient services during the year, not necessarily receiving reimbursements; (2) the charges incurred by the users of covered hospital outpatient services, and (3) the product of these two measures are combined to provide the third measure: the average charges incurred per beneficiary for hospital outpatient services. The last measure may be considered as a summary measure of the degree to which beneficiaries with specified characteristics used hospital outpatient services.

Charges per beneficiary for hospital outpatient services are a particularly appropriate basis for making comparisons between groups. Unlike other benefits under Medicare's SMI program, the hospital submits a bill for each patient contact, without regard to the beneficiary's deductible status. However, for physician services, for instance, beneficiaries may elect not to send bills to the carrier if the $60 deductible has not been met.

A fourth measure, the amount reimbursed per beneficiary by Medicare for hospital outpatient services, is a measure of the distribution of this benefit among the SMI population. However, the relative distribution of this benefit among specified beneficiary groups is strongly contingent upon the proportion of persons exceeding the SMI deductible, as well as the cost of the services used. Since physician services are the principal SMI benefit used by disabled beneficiaries without ESRD, the proportion of beneficiaries with specified characteristics who exceed the deductible is more likely to reflect the extent of use of physician services. Although the amounts reimbursed per beneficiary for hospital outpatient services are shown in this report, we will emphasize charge data in making financial comparisons in the use of hospital outpatient services.

The above measures are shown for disabled beneficiaries with and without ESRD. For those without ESRD, the data are shown by age, sex, race, and residence of beneficiary. The discussion of race differences is focused on black-white differences. The small number of persons of races other than black or white, and indications that these persons may be low users of covered hospital outpatient services,[2] tended to distort the basic black-white differences shown by the Medicare data.

Organization of the Report

Highlights of the findings for the two disability beneficiary groups conclude this Introduction. Section II (Hospital Outpatient Use and Charges, 1975: Disabled Beneficiaries Without ESRD) discusses hospital outpatient utilization rates and charges (exclusive of ESRD patients) in relation to user demographic characteristics and residence for 1975. Section III (Clinic and Emergency Room Visits, 1975) focuses on the use of hospital outpatient clinics and emergency room services by non-ESRD patients to identify relationships which may affect the use of those services. For selected measures, corresponding figures for the aged are presented for comparison purposes.

Section IV (Differences in the Use of Ambulatory Medical Services, by Race) uses data from the Current Medicare Survey to discuss race differences in the use of physician services by place of service. This section places the differences noted in Section III into the more general context of ambulatory medical services. Utilization rates and charges incurred for hospital outpatient services by beneficiaries with ESRD are examined in Section V (Beneficiaries with End-Stage Renal Disease). Section VI (Conclusions) discusses the major conclusions of this report. Section VII (the appendices) describes the sources of the data presented in this report and provides the tables required to estimate the standard errors of the measures discussed.

Highlights: Beneficiaries Without End-Stage Renal Disease

Hospital Outpatient Use and Charges, 1975

USERS, CHARGES, AND REIMBURSEMENTS

- On July 1, 1975, 1.4 million disabled beneficiaries were enrolled for SMI benefits.

---

[2] Many American Indians received services from the Indian Health Service (IHS). Services furnished by IHS facilities were not billed to Medicare in 1975, though the patient may have been a Medicare beneficiary. For a discussion of the negative perceptions of hospitals among persons of Chinese origin or descent and their disinclination to use hospital services, refer to: Richard M. Heasler, *et. al.* pp. 253-62, "Intraethnic Diversity: Health Care of the Chinese Americans," Human Organization, Fall, 1975.

- Almost 520,000 disabled persons, 268 per 1,000 enrolled (compared to 248 per 1,000 among the aged), used covered hospital outpatient services. Total charges incurred by such persons amounted to almost $68 million dollars.
- Charges per user averaged $131; charges per beneficiary were about $35 (among the aged the charges per beneficiary were $25).
- Medicare reimbursement for hospital outpatient services was $42 million, or 62 percent of all covered outpatient charges. This amount represented about 3.5 percent of total Medicare reimbursement for disabled beneficiaries without ESRD in 1975 (compared to 2.5 percent for the aged).

DEMOGRAPHIC VARIATIONS IN USERS AND CHARGES

- User rates generally increased by age, from 219 per 1,000 beneficiaries for those under 35, to 293 per 1,000 for those in the 55-59 age group. There was a drop to 274 per 1,000 for those in the 60-64 age group.
- Average charges per user decreased with age, from $161 for persons under 35, to $122 for persons 60-64 years of age. The user rate (increasing with age) offset the charges per user (decreasing with age), so there were insignificant differences in charges incurred per beneficiary by age.
- Women used outpatient benefits more than men did. Almost 251 men per 1,000 used outpatient services and incurred, on the average, charges of $123. About 298 women per 1,000 enrolled used outpatient services and incurred, on the average, $141 in charges. Charges incurred per beneficiary were $31 for men and $42 for women.
- Blacks used hospital outpatient services to a greater extent than whites used these services. About 290 blacks per 1,000 enrolled, compared to 264 per 1,000 whites, used hospital outpatient services. Blacks using hospital outpatient services incurred, on the average, charges of $158, compared to $125 incurred by whites. Black beneficiaries incurred an average charge of almost $46, compared to $33 for whites.
- Variations in the number of users per 1,000 enrolled by region were relatively small, ranging from 13 percent higher than the national average in the West (304 per 1,000 enrolled) to 8 percent lower than the national average in the South (247 per 1,000 enrolled).
- Charges per beneficiary were highest in the West, almost $53, 50 percent above the national average ($35); and lowest in the South, ($26), 26 percent below the national average.

VARIATIONS IN USE BY TYPE OF SERVICE

- Out of 520,000 disabled users of hospital outpatient services, 263,000 used emergency rooms at least once (136 per 1,000 beneficiaries); 249,000 used radiological services (128 per 1,000 beneficiaries); and 241,000 used laboratory services (125 per 1,000 beneficiaries).
- User rates for women were slightly but consistently higher for all services furnished by hospital outpatient departments.

Hospital Outpatient Clinic and Emergency Room Visits, 1975

VARIATIONS IN USE BY TYPE OF SERVICE AND DEMOGRAPHIC CHARACTERISTICS

- Fewer disabled persons used clinic services than emergency room services—116,000 (60 per 1,000 beneficiaries) and 263,000 (136 per 1,000), respectively.
- The average disabled beneficiary using clinic services made 5.3 clinic visits (compared to 4.5 for the aged).
- The average disabled beneficiary using emergency room services made 2.3 emergency room visits (compared to 1.5 for the aged).
- Black beneficiaries used hospital outpatient clinic services at a rate almost triple that of whites (134 per 1,000 beneficiaries for blacks to 47 per 1,000 for whites).
- Black beneficiaries used emergency room services at a higher rate (156 per 1,000) than whites did (132 per 1,000).

CHARGES

- Incurred charges per beneficiary for clinic services were almost three times higher for blacks ($14) than for whites ($5).
- Charges for clinic services constituted about 30 percent of all hospital outpatient charges incurred by blacks, compared to 14 percent of the charges incurred by whites.
- For blacks, the average charge per emergency room visit was $18, about 17 percent higher than for whites.
- Average charges per beneficiary for emergency room services decreased with age, from about $7 for those under 35 to $4 for those 60-64.

VARIATION BY RACE AND RESIDENCE

- In metropolitan areas, the proportion of black beneficiaries using hospital outpatient clinic services (164 per 1,000) was almost triple the white rate (61 per 1,000). In non-metropolitan areas, the black rate (44 per 1,000) was double the white rate (21 per 1,000). For both races, the use rate in metropolitan areas was about triple the rate in non-metropolitan areas.
- In metropolitan areas, blacks made 941 clinic visits per 1,000 beneficiaries, compared to 337 clinic visits per 1,000 for white beneficiaries. In non-metropolitan areas, the visit rates were 158 per 1,000 for blacks to 72 per 1,000 for whites. For both races, the visit rate in metropolitan areas was about five times higher than in non-metropolitan areas.
- Blacks in metropolitan areas incurred average charges of about $17 per beneficiary for clinic services, compared to $7 per beneficiary for clinic services for whites. In non-metropolitan areas, the respective figures were about $2 and $1.
- By all measures of use, black beneficiaries in metropolitan areas used emergency room services at a rate that was about 25 percent higher than the rate for whites.

Ambulatory Physician Services By Place of Service and Race, 1975

- Almost 80 percent of the disabled white beneficiaries made at least one visit to a physician's office, compared to about 64 percent of the blacks.
- About 65 percent of disabled black beneficiaries received at least one physician service in a hospital outpatient department, compared to about 48 percent of the whites.
- Whites received about 30 percent of their physician services in the physicians' offices, compared to 21 percent for blacks. Blacks received 27 percent of their physician services in a hospital outpatient setting, compared to 12 percent for whites.

Highlights: Beneficiaries with End-Stage Renal Disease

- About 21,200 beneficiaries with ESRD used hospital outpatient benefits in 1975. Of this number, about 14,820 beneficiaries were eligible for benefits under the provisions of Section 299I of P.L. 92-603; that is, they qualified for Medicare benefits by reason of having ESRD rather than having collected disability benefits for more than 24 consecutive months. The remaining 6,380 beneficiaries with ESRD qualified for Medicare benefits because they had been receiving disability benefits for 24 consecutive months.
- Beneficiaries with ESRD incurred hospital outpatient charges of almost $134 million, of which Medicare reimbursed about $104 million (78 percent). ESRD beneficiaries represent about 4 percent of hospital outpatient users among disabled Medicare beneficiaries, but accounted for 71 percent of hospital outpatient reimbursements.
- About 88 percent of the charges were for dialysis services.
- The average beneficiary with ESRD who used any hospital outpatient services incurred annual charges of almost $6,300, of which Medicare reimbursed almost $5,000.
- Relative to their presence in the general population, men and blacks are over-represented among ESRD beneficiaries; 58 percent of ESRD beneficiaries were men (compared to 49 percent in the general population), and 26 percent of those of known race were blacks (compared to 11 percent in the general population).

Hospital Outpatient Use and Charges, 1975: Disabled Beneficiaries Without ESRD

Hospital outpatient departments historically have provided the bulk of outpatient benefits covered under Medicare.[3] In 1975, of the 1.9 million disabled beneficiaries without ESRD enrolled for SMI, almost 520,000 or 268 per 1,000 enrolled, received hospital outpatient services (Table 1). They incurred total charges of almost $68 million, or $131 per user. Medicare reimbursements totaled $42 million, 62 percent of the charges, and about $81 per user.

Reimbursements for hospital outpatient services to disabled beneficiaries without ESRD represented about 3.5 percent of total Medicare reimbursements for this group. The use rate among aged Medicare beneficiaries was 248 per 1,000 enrolled, and reimbursements for hospital outpatient services represented 2.5 percent of the total Medicare reimbursements.[4]

Variation by Age, Race, and Sex

As shown in Table 1, user rates for the disabled generally increase with age, with a drop in the trend occurring in the 60-64 age group. Disabled women had higher use rates than men had. The user rate for women was 298 per 1,000 beneficiaries compared to 251 per 1,000 for men.

Blacks had a higher user rate (290 per 1,000 beneficiaries) than whites had (264 per 1,000).

Total charges per user varied inversely with age, beginning at $161 for those under 35, and decreasing to $122 for the 60-64 population. These figures suggest that, although the proportion of beneficiaries using hospital outpatient services generally increased with age, the intensity of use declined. This may reflect such factors as increasing difficulty of older persons in getting to the facilities or the greater inclination of physicians to hospitalize older persons. In fact, the discharge rates of disabled persons from short-stay hospitals increase with age.[5] No clear relationship existed between age and the charges per beneficiary, reflecting the offsetting effects of user rates and charges per user.

While the amount reimbursed per user also declined as the recipients aged, paralleling the decrease in incurred charges, the distribution of SMI reimbursement per beneficiary showed an irregular pattern. The amount reimbursed for hospital outpatient services to a specified age group depends on the proportion of beneficiaries exceeding the deductible and qualifying for reimbursements. This proportion is affected by the use of other SMI benefits, chiefly physician services. Reflecting the increasing use of physician services by age, the proportion of disabled beneficiaries exceeding the deductible increased with age.[6] This tended to alter the relationship between the beneficiary's use of hospital outpatient services and the amounts reimbursed for those services. For this reason, charges are the principal basis for comparing the financial differences in the use of hospital outpatient services by demographic characteristics.

[3] Medicare outpatient benefits also cover non-hospital outpatient physical therapy services, outpatient services furnished to inpatients when their inpatient benefit days are exhausted, and rural health clinic services. Hospital outpatient services accounted for 60 percent of all outpatient charges incurred by the disabled in 1975 (unpublished data, HCFA).

[4] For more information, see Ruther, Martin and Herbert A. Silverman "Use of Hospital Outpatient Services by the Aged, 1975" (in press), HCFA.

[5] In 1975, the discharge rate for those under 35 was 237 per 1,000 enrolled, while for those 60-64 the discharge rate was 377 per 1,000 enrolled (unpublished data, HCFA).

[6] For more information, see Ruther, Martin, "Medicare: Health Insurance for the Aged and Disabled, 1975; Summary—Utilization and Reimbursement by Person."

TABLE 1

Use of Hospital Outpatient Services by Disabled Beneficiaries Without End-Stage Renal Disease: Users, Charges, and Reimbursement by Age, Sex, and Race, 1975[1]

Age, Sex, and Race	SMI Enrollment[2]	Users		Charges			Reimbursement		
		Number	Per 1,000 Enrolled	Amount (In Thousands)	Per User	Per Beneficiary	Amount (In Thousands	Per User	Per Beneficiary
All Persons Under 65 Years[3]	1,938,333	519,760	268.2	$67,919	$130.67	$35.05	$42,106	$81.01	$21.73
Age									
Under 35	219,807	48,200	219.3	7,774	161.29	35.37	4,988	103.48	22.69
35-44	228,376	53,740	235.3	7,664	142.61	33.56	4,847	90.19	21.22
45-54	463,534	128,760	277.8	16,509	128.22	35.62	10,135	78.71	21.85
55-59	411,526	120,740	293.4	15,430	127.80	37.43	9,488	78.58	23.02
60-64	615,090	168,320	273.7	20,541	122.03	33.44	12,649	75.15	20.59
Sex									
Men	1,218,531	305,180	250.5	37,687	123.49	30.93	22,852	74.88	18.76
Women	719,802	214,580	298.1	30,232	140.89	42.00	19,254	89.73	26.75
Race									
White	1,617,947	426,980	263.9	53,480	125.35	33.05	33,130	77.59	20.48
Black[4]	276,165	80,180	290.3	12,653	157.81	45.81	7,856	97.98	28.44

[1] Based on data recorded December 1976.
[2] As of July 1, 1975.
[3] Includes unknown race and races other than black and white. Excludes persons with ESRD.
[4] Estimated from 95-percent sample of the enrollment file.

In addition to a higher proportion of women using hospital outpatient services, women incurred higher charges per beneficiary ($42) than men incurred ($31). As we will note in the later discussion of specific hospital outpatient services, women generally used more services across the spectrum of services.

Blacks incurred higher average charges per beneficiary (almost $46) than whites incurred (about $33). As we will discuss later, these figures reflect a greater use of hospital outpatient clinic services, particularly in metropolitan areas—apparently as a major source of primary medical care.

Variation by Residence

As shown in Table 2, user rates by region varied slightly, ranging from 304 per 1,000 beneficiaries in the West to 247 per 1,000 in the South. These rates were, respectively, 13 percent above and 8 percent below the national average (269 per 1,000 beneficiaries). However, by geographic division, user rates varied more.

In New England, the proportion of enrollees using hospital outpatient services was highest (323 per 1,000 beneficiaries), about 56 percent higher than in the West South Central States, where the user rate was lowest (207 per 1,000). Among the States, Maine had the highest proportion of disabled beneficiaries using hospital outpatient services, (411 per 1,000) while South Dakota was lowest, (145 per 1,000).

Charges per user varied more than user rates, ranging from 33 percent above the national average in the West, to 19 percent below the national average in the South (Table 2). The Pacific States exhibited the highest average charges per user, $184, while the East South Central States were lowest, $92 per user. Average charges per user were highest in California ($199) and in Nevada and Arizona, ($191); and lowest in South Dakota ($60) and Kentucky ($64).

Reflecting the combined effects of user rates and charges incurred by users, the distribution of hospital outpatient charges across all resident beneficiaries was highest in the West ($53) and lowest in the South ($26); highest in California ($64) and lowest in South Dakota ($9).

Variation by Type of Service

Table 3 shows that, of the 520,000 disabled beneficiaries using hospital outpatient services, about one-half (263,000) used emergency room services, while somewhat less than half used radiological (249,000) and laboratory services (241,000). The user rate for women was higher than that of men for each of the services shown in Table 3. Except for physical therapy, the user rate for blacks was higher than for whites for each of the services. The difference in the user rate of hospital outpatient clinic services between blacks and whites is the largest difference, as shown in Table 3. Almost half the blacks using hospital outpatient services used clinic services (46 percent) compared to about a sixth of the whites (18 percent). In relation to the total beneficiary population, the user rate for clinic services among blacks (134 per 1,000 beneficiaries) was about triple the white rate (47 per 1,000 beneficiaries).

TABLE 2

Use of Hospital Outpatient Services by the Disabled Beneficiaries Without End-Stage Renal Disease: Users, Charges, and Reimbursements by Residence, 1975[1]

Area of Residence	Users			Charges			Reimbursement			
	SMI Enrollment[2]	Number	Per 1,000 Enrolled	Amount (In Thousands)	Per User	Per Beneficiary	Amount (In Thousands)	Per User	Per Beneficiary	As Percent of Charges
All Areas	1,938,333	519,760	268.2	$67,919	$130.67	$35.05	$42,106	$81.01	$21.73	62.0
United States[3]	1,924,400	518,500	269.4	67,799	130.67	35.20	42,040	81.08	21.84	62.0
Northeast	418,359	122,480	292.8	17,121	139.78	40.93	10,194	83.23	24.37	59.5
North Central	459,390	119,540	260.2	14,816	123.94	32.25	8,979	75.11	19.54	60.6
South	719,305	177,980	247.4	18,844	105.88	26.19	11,246	63.19	15.63	59.7
West	321,687	97,840	304.2	16,966	173.41	52.75	11,593	118.48	36.04	68.3
Northeast										
New England	92,386	29,840	323.0	3,776	126.54	40.87	2,407	80.67	26.06	63.8
Middle Atlantic	325,973	92,640	284.2	13,345	144.05	40.94	7,787	84.06	23.89	58.4
North Central										
East North Central	330,141	89,640	271.5	11,399	127.16	34.52	6,892	76.89	20.88	60.5
West North Central	129,249	29,900	231.3	3,417	114.28	26.43	2,086	69.78	16.14	61.1
South										
South Atlantic	352,744	97,760	277.1	10,956	112.07	31.05	6,604	67.55	18.72	60.3
East South Central	171,964	39,980	232.5	3,665	91.68	21.32	2,144	53.62	12.47	58.5
West South Central	194,597	40,240	206.8	4,222	104.93	21.70	2,499	62.10	12.84	59.2
West										
Mountain	70,068	20,680	295.1	2,794	135.11	39.87	1,839	88.94	26.25	65.8
Pacific	251,599	77,160	306.7	14,172	183.67	56.33	9,753	126.40	38.77	68.8
New England										
Maine	10,840	4,460	411.4	396	88.89	36.57	238	53.42	21.98	60.1
New Hampshire	5,639	2,080	368.9	158	76.07	28.06	91	43.59	16.08	57.3
Vermont	4,194	1,320	314.7	95	71.64	22.55	54	41.03	12.91	57.3
Massachusetts	42,150	13,600	322.7	1,897	139.48	45.01	1,245	91.52	29.53	65.6
Rhode Island	8,803	2,660	302.2	291	109.28	33.02	182	68.39	20.67	62.6
Connecticut	21,130	5,720	270.7	939	164.15	44.44	598	104.49	28.29	63.7
Middle Atlantic										
New York	153,386	40,880	266.5	7,328	179.26	47.77	4,397	107.56	28.66	60.0
New Jersey	59,181	16,280	275.1	2,020	124.07	34.13	1,246	76.54	21.06	61.7
Pennsylvania	113,406	35,480	312.9	3,997	112.66	35.25	2,144	60.43	18.91	53.6
East North Central										
Ohio	91,789	23,440	255.4	3,035	129.49	33.07	1,876	80.01	20.43	61.8
Indiana	42,023	11,500	273.7	1,127	97.99	26.82	655	56.99	15.60	58.2
Illinois	78,727	17,660	224.3	1,949	110.35	24.75	1,165	65.97	14.80	59.8
Michigan	82,257	27,340	332.4	4,204	153.77	51.11	2,516	92.04	30.59	59.9
Wisconsin	35,345	9,700	274.4	1,084	111.76	30.67	680	70.09	19.23	62.7
West North Central										
Minnesota	25,470	6,360	249.7	766	120.47	30.08	475	74.74	18.66	62.0
Iowa	21,550	5,580	258.9	848	151.91	39.33	572	102.49	26.53	67.5
Missouri	47,147	10,520	223.1	1,089	130.49	29.11	605	57.52	12.83	55.6
North Dakota	4,496	960	213.5	94	98.02	20.93	57	59.65	12.74	60.8
South Dakota	5,122	740	144.5	44	60.03	8.67	25	33.24	4.80	55.4
Nebraska	9,911	2,400	242.2	245	102.29	24.77	145	60.60	14.68	59.2
Kansas	15,553	3,340	214.8	330	98.92	21.25	207	61.90	13.30	62.6

[1] Based on data recorded December 1976.
[2] Consists of 50 States, District of Columbia, and residence unknown.
[3] As of July 1, 1975.

(continued)

TABLE 2 (continued)

Use of Hospital Outpatient Services by the Disabled Beneficiaries Without End-Stage Renal Disease: Users, Charges, and Reimbursements by Residence, 1975[1]

Area of Residence	Users			Charges			Reimbursement			
	SMI Enrollment[2]	Number	Per 1,000 Enrolled	Amount (In Thousands)	Per User	Per Beneficiary	Amount (In Thousands)	Per User	Per Beneficiary	As Percent of Charges
South Atlantic										
Delaware	4,451	1,400	314.5	129	92.08	28.96	69	48.97	15.40	53.2
Maryland	26,422	8,380	317.2	1,388	165.64	52.54	910	108.63	34.46	65.6
Dist. of Columbia	6,076	1,100	181.0	204	185.07	33.50	138	125.49	22.71	67.8
Virginia	45,640	12,440	272.6	1,609	129.36	35.26	1,063	85.47	23.30	66.1
West Virginia	33,767	10,580	313.3	727	68.69	21.52	294	27.76	8.70	40.4
North Carolina	60,536	17,800	294.0	1,151	98.37	28.92	970	54.50	16.02	55.4
South Carolina	34,669	8,420	242.9	760	90.25	21.92	454	53.95	13.10	59.8
Georgia	57,544	17,660	306.9	2,025	114.65	35.19	1,221	69.14	21.22	60.3
Florida	83,639	19,980	238.9	2,364	118.31	28.26	1,484	74.29	17.75	62.8
East South Central										
Kentucky	43,262	10,440	241.3	663	63.52	15.33	310	29.73	7.17	46.8
Tennessee	50,941	12,760	250.5	1,399	109.63	27.46	857	67.19	16.83	61.3
Alabama	45,990	10,160	220.9	1,098	108.10	23.88	680	66.95	14.79	61.9
Mississippi	31,771	6,620	208.4	505	76.30	15.90	296	44.71	9.32	58.6
West South Central										
Arkansas	31,289	6,020	192.4	521	86.62	16.67	304	50.50	9.72	58.3
Louisiana	41,095	8,780	213.7	661	75.28	16.09	341	38.89	8.31	51.7
Oklahoma	29,053	5,200	179.0	663	127.53	22.83	422	81.24	14.54	63.7
Texas	93,160	20,240	217.3	2,377	117.43	25.52	1,431	70.70	15.36	60.2
Mountain										
Montana	6,553	1,800	274.7	138	76.58	21.04	84	46.79	12.85	61.1
Idaho	6,797	2,300	338.4	207	90.19	30.52	121	52.75	17.85	58.5
Wyoming	2,171	700	322.4	53	75.05	24.20	28	40.62	13.10	54.1
Colorado	14,772	4,560	308.7	658	144.35	44.56	450	98.72	30.47	68.4
New Mexico	10,014	2,740	273.6	236	85.99	23.53	131	47.63	13.03	55.4
Arizona	18,882	5,300	280.7	1,013	191.21	53.67	690	130.19	36.54	68.1
Utah	6,405	2,020	315.4	248	123.00	38.79	162	80.03	25.24	65.1
Nevada	4,474	1,260	281.6	241	190.87	53.75	173	137.26	38.65	71.9
Pacific										
Washington	28,763	6,500	226.0	730	112.28	25.38	477	73.32	16.57	65.3
Oregon	21,592	5,860	271.4	690	117.81	31.97	442	75.43	20.47	64.0
California	195,641	63,000	322.0	12,541	199.06	64.10	8,703	138.14	44.48	69.4
Alaska	939	320	340.8	27	83.91	28.60	17	54.01	18.41	64.4
Hawaii	4,684	1,480	316.0	184	124.38	39.30	114	77.02	24.34	61.9
Residence Unknown		660		52	79.35		29	43.42		54.7
Outlying Areas										
Puerto Rico	12,348	1,100	89.1	97	88.06	7.85	52	47.45	4.23	53.9
Other Outlying Areas	371	60	161.7	9	148.83	24.07	5	84.20	13.62	56.6
Foreign Countries	1,214	100	82.4	14	140.19	11.55	9	86.22	7.10	61.5

TABLE 3

Use of Hospital Outpatient Services by Disabled Beneficiaries Without End-Stage Renal Disease: Number and Pecent of Distribution of Users by Type of Service, Sex, and Race, 1975

Sex and Race	Total[1]	Clinic	Emergency Room	Laboratory	Radiology	Pharmacy	Physical Therapy	Other
	Number of Users							
All Persons[2]	519,760	115,980	262,580	241,260	248,500	127,860	24,900	215,240
Sex								
Men	305,180	66,740	161,160	135,860	140,140	79,040	12,680	130,340
Women	214,580	49,240	101,420	105,400	108,360	48,820	12,220	84,900
Race								
White	426,980	75,220	214,060	196,740	206,100	105,820	21,120	178,680
Black	80,180	37,120	43,140	38,180	36,600	19,620	3,080	31,460
	Percent of Users							
All Persons[2]	100.0	22.3	50.5	46.4	47.8	24.6	4.8	41.4
Sex								
Men	100.0	21.9	52.8	44.5	45.9	25.9	4.2	42.7
Women	100.0	22.9	47.3	49.1	50.5	22.8	5.7	39.6
Race								
White	100.0	17.6	50.1	46.1	48.3	24.8	4.9	41.8
Black	100.0	46.3	53.8	47.6	45.6	24.5	3.8	39.2
	Users per 1,000 Beneficiaries							
All Persons[2]	268.2	59.8	135.5	124.5	128.2	66.0	12.9	111.0
Sex								
Men	250.5	54.8	132.3	111.5	115.0	64.9	10.4	107.0
Women	298.1	68.4	140.9	146.4	150.5	67.8	17.0	118.0
Race								
White	263.9	46.5	132.3	121.6	127.4	65.4	13.1	110.4
Black	290.3	134.4	156.2	138.3	132.5	71.0	11.2	113.9

[1] The sums of the users and percent of users of each service exceed the number of total users because persons are counted individually for each service, but only once in the total column.
[2] Includes unknown races and races other than white or black.

Sex and race differences in the use of hospital outpatient services are accentuated further by the data shown in Table 4. Reference to charges per beneficiary shows that women incurred higher charges for each type of service except pharmacy services, which account for only 3 percent of the charges. In sum, women beneficiaries incurred, on the average, charges ($42) which were 36 percent higher than the average incurred by men ($31).

Black beneficiaries incurred, on the average, charges ($46) which were 39 percent higher than the average incurred by whites ($33). About 70 percent of the difference was due to the difference in the charges incurred for clinic services. Clinic charges accounted for 30 percent of the hospital outpatient charges for blacks, compared to 14 percent for whites. Average charge per beneficiary was higher for whites only for pharmacy and physical therapy services, which accounted for less than 10 percent of the charges.

Among the services offered in outpatient departments and billed on the HCFA-1483 (Appendix A), the units of service are recorded only for clinic and emergency room services in terms of the number of visits. The following section presents more information about clinic and emergency room services.

Clinic and Emergency Room Visits, 1975

Table 5 shows that, while fewer persons used clinic services than emergency room services, they made more visits to clinics. There were 263,000 disabled users of emergency room services (136 per 1,000 beneficiaries), over twice the 116,000 users of clinic services (60 per 1,000 beneficiaries). However, users of clinic services averaged 5.3 visits, while users of emergency room services averaged 2.3 visits.[7] As a result, disabled beneficiaries made about 317 clinic visits per 1,000 beneficiaries compared to 306 emergency room visits per 1,000 beneficiaries. Charges per clinic visit averaged $19 compared to $15 per emergency room visit. The average charge incurred per beneficiary for clinic services was $5.96 compared to $4.72 for emergency room services.

Variation by Age and Sex

Age

As shown in Table 5, the proportion of beneficiaries who used clinic services increased up to the age of 60 (from 56 per 1,000 at ages under 35 to 66 per 1,000 at 55-59), and then fell by 15 percent. Use by age, as measured by visits or charges per users, or visits or charges per beneficiary, showed no regular pattern.

The proportion of beneficiaries using emergency room services increased slowly up to the age of 55, and then decreased rather sharply after age 60 (from about 142 per 1,000 beneficiaries at ages 55-59 to 120 per 1,000 after ages 60-64). The intensity of use, as measured by number of visits per 1,000 beneficiaries, declined from 387 for those under 35 years to 228 for those 60-64 years of age. Paralleling this, charges per beneficiary also declined with age, from $6.50 for those under 35 years to $3.58 for those 60-64 years of age. The data suggest that, after 55 years of age, emergency situations may result more often in an inpatient admission rather than treatment in an ambulatory setting.

Sex

Table 5 shows that disabled women beneficiaries made significantly more use of clinic services than the men did. A higher proportion of women (68 per 1,000) used clinic services than men did (55 per 1,000), and women made more visits (397 per 1,000 beneficiaries) than men made (274 per 1,000 beneficiaries) and incurred higher charges. However, the use of emergency room services showed very little difference by sex.

As discussed earlier, blacks used clinic services more than whites did. Further, Table 5 indicates that the use of emergency room services was also higher among blacks than among whites. These differences by race are examined in more detail in the following section.

Variation by Race and Type of County

Clinic Services

Because of the small number of blacks living in non-metropolitan areas outside the South, the data were combined for the Northeast, North Central and the West regions to reduce sampling variance. Table 6 shows that hospital outpatient clinic services were more widely used in the metropolitan areas than in non-metropolitan areas.

The proportion of black beneficiaries using clinic services in metropolitan areas was about four times the rate of black beneficiaries in non-metropolitan areas (164 per 1,000 beneficiaries in metropolitan areas compared to 44 per 1,000 in non-metropolitan areas). The proportion of users among whites in metropolitan areas was about three times the non-metropolitan rate (61 to 21, respectively, per 1,000 beneficiaries). For both races, the visit and incurred charges rates were five times higher among beneficiaries in metropolitan areas than in non-metropolitan areas.

In all regions, in both metropolitan and non-metropolitan areas, disabled blacks made greater use of clinic services than whites did. In metropolitan areas, the user rate among blacks (164 per 1,000 beneficiaries) was about triple the white rate (61 per 1,000). The number of visits and total charges incurred by black beneficiaries were also about triple the white rates. In non-metropolitan areas, measures of black use of clinic services were about double the white rates; user rates were 44 per 1,000 blacks compared to 21 per 1,000 whites; visits were 158 per 1,000 blacks compared to 72 per 1,000 whites, and incurred charges were over $2 per black beneficiary compared to about a dollar per white beneficiary.

The data show that blacks made greater use of hospital clinic services than whites did, especially in metropolitan areas. This information suggests that the hospital outpatient clinic may be a significant site of primary care medical services to blacks in metropolitan areas, particularly in the inner cities.

[7] For the aged, the corresponding averages were 4.5 clinic visits and 1.5 emergency room visits, Ruther and Silverman, *Op. Cit.*

TABLE 4

Use of Hospital Outpatient Services by Disabled Beneficiaries Without End-Stage Renal Disease: Amount and Percent Distribution of Charges by Type of Services, Sex, and Race, 1975

Sex and Race	Total	Clinic	Emergency Room	Laboratory	Radiology	Pharmacy	Physical Therapy	Other
	Amount of Charges (In Thousands)							
All Persons[1]	$67,919	$11,568	$9,146	$11,875	$13,845	$2,034	$4,138	$15,313
Sex								
Men	37,687	6,280	5,638	6,202	7,247	1,393	1,956	8,970
Women	30,232	5,287	3,508	5,673	6,598	641	2,182	6,342
Race								
White	53,480	7,509	7,324	9,355	11,415	1,748	3,487	12,643
Black	12,653	3,745	1,673	2,183	2,118	259	530	2,146
	Percent Distribution							
All Persons[1]	100.0	17.0	13.5	17.5	20.4	3.0	6.1	22.5
Sex								
Men	100.0	16.7	15.0	16.5	19.2	3.7	5.2	23.8
Women	100.0	17.5	11.6	18.8	21.8	2.1	7.2	21.0
Race								
White	100.0	14.0	13.7	17.5	21.3	3.3	6.5	23.6
Black	100.0	29.6	13.2	17.3	16.7	2.0	4.2	17.0
	Charges Per User							
All Persons[1]	$130.67	$99.74	$34.83	$49.22	$55.11	$ 15.91	$166.18	$71.14
Sex								
Men	123.49	94.10	34.98	45.65	51.71	17.62	154.26	68.82
Women	140.89	107.37	34.59	53.82	60.89	13.13	178.56	74.70
Race								
White	125.25	99.83	34.21	47.55	55.39	16.52	165.10	70.76
Black	157.81	100.89	38.78	57.18	57.87	13.20	172.08	68.21
	Charges per Beneficiary							
All Persons[1]	$35.05	$5.96	$4.72	$6.13	$7.14	$1.05	$2.14	$7.90
Sex								
Men	30.93	5.16	4.63	5.09	5.95	1.14	1.60	7.36
Women	42.00	7.34	4.87	7.88	9.16	.89	3.04	8.81
Race								
White	33.05	4.64	4.53	5.78	7.06	1.08	2.16	7.81
Black	45.81	13.56	6.06	7.91	7.67	.94	1.93	7.77

[1] Includes unknown races and races other than black or white.

TABLE 5

Use of Hospital Outpatient Clinic and Emergency Room Services by Disabled Beneficiaries Without End-Stage Renal Disease: Users, Visits, and Charges, 1975

Age, Sex, and Race	Users		Visits			Charges			
	Number	Per 1,000 Beneficiaries	Number	Per User	Per 1,000 Beneficiaries	Total (In Thousands)	Per Visit	Per User	Per Beneficiary
					Clinic				
All Persons	115,980	59.8	615,880	5.3	316.9	$11,568	$18.78	$ 99.74	$ 5.96
Under 35	12,260	55.8	69,140	5.6	312.5	1,324	19.15	107.99	6.03
35-44	13,420	58.8	69,680	5.2	305.8	1,464	21.01	109.09	6.41
45-54	28,940	62.2	149,580	5.2	323.4	2,581	17.26	89.18	5.55
55-59	27,040	65.7	140,940	5.2	341.6	2,670	18.95	98.74	6.49
60-64	34,320	55.8	186,540	5.4	301.3	3,528	18.91	102.80	5.74
Sex									
Men	66,740	54.8	330,120	5.0	274.0	6,280	19.02	94.10	5.16
Women	49,240	68.4	285,760	5.8	396.7	5,287	18.50	107.37	7.34
Race									
White	75,220	46.5	389,560	5.2	241.8	7,509	19.27	99.83	4.64
Black	37,120	134.4	206,360	5.6	752.6	3,745	18.15	100.89	13.56
					Emergency Room				
All Persons	262,580	135.5	593,000	2.3	305.9	$9,146	$15.42	$34.83	$4.72
Under 35	30,380	138.2	84,220	2.8	387.0	1,429	16.97	47.04	6.50
35-44	31,740	139.0	85,900	2.7	375.3	1,293	15.05	40.74	5.66
45-54	68,400	147.0	151,040	2.2	323.4	2,355	15.59	34.43	5.06
55-59	58,360	141.8	131,980	2.3	283.6	1,866	16.37	31.97	4.53
60-64	73,700	119.8	139,860	1.9	227.6	2,203	15.75	29.89	3.58
Sex									
Men	161,160	132.3	361,040	2.2	291.1	5,638	15.62	34.98	4.63
Women	101,420	140.9	231,960	2.1	295.9	3,508	15.12	34.59	4.87
Race									
White	214,060	132.3	473,960	2.2	291.1	7,324	15.45	34.21	4.53
Black	43,140	156.2	92,580	2.2	343.6	1,673	18.07	38.78	6.06

TABLE 6

Use of Hospital Outpatient Clinic Services by Disabled Black and White Beneficiaries Without End-Stage Renal Disease; Enrolled Beneficiaries, Users, Visits, and Charges by Residence, 1975[1]

Region, Type of County of Residence, and Race	SMI Enrollment[2]	Users		Visits			Charges			
		Number	Per 1,000 Beneficiaries	Number	Per User	Per 1,000 Beneficiaries	Total (In Thousands)	Per Visit	Per User	Per Beneficiary
United States										
Metropolitan Counties										
White	1,032,605	63,000	61.0	347,700	5.5	336.7	$6,928	$19.92	$109.97	$ 6.71
Black	207,814	34,080	164.0	195,620	5.7	941.3	3,591	18.36	105.37	17.28
Non-metropolitan Counties										
White	561,482	11,860	21.1	40,440	3.4	72.0	547	13.52	46.12	.97
Black	66,272	2,940	44.4	10,480	3.6	158.1	149	14.26	50.68	2.25
Northeast, North Central and West										
Metropolitan Counties										
White	749,837	48,900	55.2	276,820	5.7	369.2	6,063	21.90	123.98	6.84
Black	119,157	19,280	161.8	118,800	6.2	997.0	2,581	21.73	133.87	21.66
Non-metropolitan Counties										
White	288,932	5,560	19.2	20,400	3.7	70.6	285	13.97	51.26	.98
Black	5,473	220	40.2	1,160	5.3	212.0	13	11.21	59.09	2.38
Northeast										
Metropolitan Counties										
White	293,448	19,800	67.5	120,580	6.1	410.9	3,000	24.88	151.52	10.23
Black	44,381	7,920	178.5	51,340	6.5	1,156.8	1,302	25.37	164.39	29.34
Non-metropolitan Counties										
White	70,450	1,160	16.5	3,960	3.4	56.2	77	19.56	66.38	1.10
Black	1,022	60	58.7	280	4.7	274.0	4	15.50	66.67	3.91
North Central										
Metropolitan Counties										
White	242,618	10,880	44.8	51,040	4.7	210.4	709	13.89	65.17	2.92
Black	49,334	7,120	144.3	39,680	5.6	804.3	711	17.91	99.86	14.41
Non-metropolitan Counties										
White	153,688	2,080	13.5	6,980	3.4	45.4	66	9.49	31.73	.43
Black	3,413	60	17.6	360	6.0	105.5	3	8.06	50.00	.88
West										
Metropolitan Counties										
White	213,771	18,220	85.2	105,200	5.8	492.1	2,354	22.37	129.20	11.01
Black	25,442	4,240	166.7	27,780	6.6	1,091.9	568	20.46	133.96	22.33
Non-metropolitan Counties										
White	64,794	2,320	35.8	9,460	4.1	146.0	142	14.98	61.21	2.19
Black	1,038	100	96.3	520	5.2	501.0	6	11.95	60.00	5.78
South										
Metropolitan Counties										
White	282,768	14,100	49.9	70,880	5.0	250.7	865	12.21	61.35	3.06
Black	88,657	14,800	167.0	76,820	5.2	866.5	1,010	13.15	68.24	11.40
Non-metropolitan Counties										
White	272,550	6,300	23.1	20,040	3.2	73.5	261	13.03	41.43	.96
Black	60,799	2,720	44.7	9,320	3.4	153.3	136	14.59	50.00	2.24

[1] Only blacks and whites in known type of county.
[2] As of July 1, 1975.

Emergency Room Services

Table 7 shows that black beneficiaries in metropolitan areas made greater use of emergency room services than whites did. The user rate among black beneficiaries in metropolitan areas (167 per 1,000) was 25 percent higher than for whites (134 per 1,000). Also, the visit rate among blacks (350 per 1,000) was 25 percent higher than the white visit rate (280 per 1,000) and average charge per beneficiary was about 38 percent higher for blacks ($6.92) than for whites ($5.00). The data show that the user and visit rates among blacks in metropolitan areas were higher than the rates for blacks in non-metropolitan areas.

Among whites, the metropolitan and non-metropolitan difference in user and visit rates were relatively small. Although the visit rate for whites was higher in non-metropolitan areas (328 per 1,000) than in metropolitan areas (280 per 1,000), the higher charges for emergency room services in metropolitan areas resulted in average charges per white beneficiary in metropolitan areas ($5.00) being higher than in non-metropolitan areas ($3.81).

An examination of black and white differences in the use of emergency room services in non-metropolitan areas should separate the South from the other regions. In regions outside the South, blacks in non-metropolitan areas used emergency room services to a notably greater extent than whites did. The user rate for blacks (212 per 1,000 beneficiaries) was 73 percent higher than the user rate for whites (123 per 1,000). The visit rate for blacks (402 per 1,000) was 55 percent higher than the visit rate for whites (260 per 1,000). The average charge per beneficiary for blacks ($6.58) was almost double the white average ($3.37). In the non-metropolitan areas of the South, all measures of use were higher for whites. Since most of the disabled blacks living in non-metropolitan areas are in the South, the figures for the South dominate the national figures for blacks in non-metropolitan areas, and pull them down, relative to the figures for whites.

The principal inference to be drawn from the data on the use of emergency room services by race is that blacks in metropolitan areas and in non-metropolitan areas outside the South made more use of hospital emergency room services than whites did. This is another indication of greater black reliance on hospitals for ambulatory medical services than is displayed by whites.

Differences in the Use of Ambulatory Medical Services, by Race

The previous discussion on the differences in the use of hospital outpatient clinic and emergency room services by whites and blacks suggests that these differences may reflect broader differences in the use of ambulatory medical services. Table 8 shows substantial differences by race, in 1975, in the patterns of SMI reimbursements for physician services and outpatient services, of which the category of hospital outpatient services is the principal component.

Almost 45 percent of white beneficiaries received reimbursement for physician services, compared to only 37 percent of beneficiaries of other races.[8] The average amount reimbursed for physician services per white beneficiary receiving SMI reimbursement (shown in Table 8 as per person served) was 22 percent higher than for non-whites. Reimbursements for physician services represented 84 percent of total SMI reimbursements for whites, but only 72 percent for non-whites. For outpatient services, the proportion of non-whites reimbursed was slightly higher than for whites (270 per 1,000 beneficiaries to 265 per 1,000). For non-whites, reimbursement for outpatient services constituted 21 percent of SMI reimbursements, compared to 13 percent for whites.

Table 9 presents data on the use of physician services derived from the Current Medicare Survey (CMS). (See Appendix C. Statements of race differences derived from CMS data are statistically significant at the 95 percent confidence level.) The data show that the races differed in where beneficiaries received ambulatory physician services. About 79.7 percent of the whites using covered physician services received at least one service in a physician's office, compared to 64.3 percent of the blacks. About 65.2 percent of the black beneficiaries using covered physician services received at least one service in a hospital outpatient setting, compared to 47.5 percent of the whites. Thus, there are differences in where blacks and whites tend to go to receive physician services.

The races also differed in the proportion of physician services received in the specified places of service. Whites received 55 percent of their ambulatory physician services in physicians' offices (accounting for 29.8 percent of all covered physician services). By contrast, blacks received 46 percent of their ambulatory physician services in hospital outpatient facilities, compared to only 22 percent for the whites. The previous discussion of clinic services suggests that the high use blacks make of hospital outpatient facilities for medical services is primarily a phenomenon of metropolitan areas. Thus, it appears that in metropolitan areas disabled black beneficiaries use hospital-based facilities as an important source of ambulatory medical services.

---

[8] Data were not available for blacks alone. The data on all other races are used to indicate an order of magnitude of difference. On a national basis, blacks constitute about 93.6 percent of persons known to be of races other than white. Physician data in Table 8 include services to beneficiaries in inpatient facilities. Data in Table 9 indicate there is little relative difference between whites and blacks in the use of physician services in hospitals, the principal site of inpatient services. These data suggest that the principal portion of the difference in Table 8 is attributable to black and white differences in the use of physician services in ambulatory settings.

TABLE 7

Use of Hospital Emergency Room Services by Black and White Beneficiaries Without End-Stage Renal Disease: Users, Visits, and Charges by Residence, 1975

Region, Type of County of Residence, and Race	Users		Visits			Charges			
	Number	Per 1,000 Beneficiaries	Number	Per User	Per 1,000 Beneficiaries	Total (In Thousands)	Per Visit	Per User	Per Beneficiary
United States									
Metropolitan Counties									
White	138,760	134.4	288,860	2.1	279.7	$5,166	$17.88	$37.23	$5.00
Black	34,780	167.4	72,660	2.1	349.6	1,438	19.79	41.35	6.92
Non-metropolitan Counties									
White	74,660	133.0	184,140	2.5	328.0	2,141	11.63	28.68	3.81
Black	8,300	125.2	19,800	2.4	298.8	233	11.77	28.07	3.51
Northeast, North Central, and West									
Metropolitan Counties									
White	98,480	131.3	199,080	2.0	265.5	3,891	19.54	39.51	5.19
Black	20,260	170.0	40,220	2.0	337.5	891	22.15	43.98	7.48
Non-metropolitan Counties									
White	35,460	122.7	75,080	2.1	259.9	973	12.96	27.44	3.37
Black	1,160	212.0	2,200	1.9	402.0	36	16.36	31.03	6.58
Northeast									
Metropolitan Counties									
White	35,700	121.7	65,160	1.8	222.1	1,247	19.14	34.93	4.25
Black	6,780	152.8	12,660	1.9	285.3	268	21.18	39.53	6.04
Non-metropolitan Counties									
White	10,300	146.2	20,320	2.0	288.4	295	14.53	28.64	4.19
Black	260	254.4	540	2.1	528.4	10	18.48	38.46	9.78
North Central									
Metropolitan Counties									
White	31,700	130.7	63,820	2.0	263.1	1,116	17.48	35.21	4.06
Black	8,940	181.2	18,160	2.0	368.1	394	21.68	44.07	7.99
Non-metropolitan Counties									
White	16,380	106.6	38,260	2.3	249.0	444	11.62	27.11	2.89
Black	660	193.4	1,260	1.9	369.2	17	13.14	25.76	4.98
West									
Metropolitan Counties									
White	31,080	145.4	70,100	2.3	327.9	1,528	21.79	49.16	7.15
Black	4,540	178.5	9,400	2.1	369.5	229	24.36	50.44	9.00
Non-metropolitan Counties									
White	8,780	135.5	16,500	1.9	254.7	234	14.18	26.65	3.61
Black	240	231.2	400	1.7	385.4	9	22.85	37.50	8.67
South									
Metropolitan Counties									
White	40,280	142.5	89,780	2.2	317.5	1,276	14.21	31.68	4.51
Black	14,520	163.8	32,440	2.2	365.9	547	16.87	37.67	6.17
Non-metropolitan Counties									
White	39,200	143.8	109,060	2.8	400.2	1,167	10.70	29.77	4.28
Black	7,140	117.4	17,600	2.5	289.5	197	11.21	27.59	3.24

TABLE 8

Use of Physician and Outpatient Services and SMI Reimbursement on Behalf of Disabled Beneficiaries Without End-Stage Renal Disease, by Race, 1975

Race	Persons Served and Amounts Reimbursed	
	Physician Services[1]	All Hospital Outpatient Services[2]
	Persons Served per 1,000 Enrolled for SMI	
Whites	448.1	264.5
All Other Races	369.2	269.6
	Amount Reimbursed per Person Served	
Whites	$307.60	$77.59
All Other Races	252.35	97.98
	Amount Reimbursed per Beneficiary	
Whites	$137.84	$20.52
All Other Races	93.17	26.42
	Percent of Total SMI Reimbursement[3]	
Whites	84.2	12.6
All Other Races	72.1	20.6

[1] The data are from 1975 Summary tabulations. The data measure amounts reimbursed on behalf of persons exceeding the SMI deductible.

[2] These data are based on tabulations in this report. Hospital outpatient clinic services are a subcategory of hospital outpatient services.

[3] The sums of the percentages do not add to 100.0 because Part B services such as home health agency services and rural health clinics are not included.

TABLE 9

Measures of Use of Physician Services by Race, 1975

Race	All SMI-covered Physician Services	SMI-covered Physician Services to Hospital Inpatients	SMI-covered Physician Services to other than Hospital Inpatients		
			Total[1]	Physician's Offices	Hospital Outpatient Departments
	Persons Served				
Whites	1,604,600	54,200	1,568,900	1,279,200	762,300
Black	285,200	99,800	280,600	183,500	185,800
	Number of SMI-covered Physician Services				
Whites	30,524,900	13,943,000	16,581,800	9,082,900	3,666,200
Black	5,763,700	2,425,900	3,337,800	1,211,500	1,546,300
	Persons Served per 1,000 Enrolled				
Whites	853.3	289.4	834.3	680.2	405.4
Black	864.0	302.3	850.1	555.9	562.9
	Percent of Persons Using Covered Physician Services				
Whites	100.0	33.9	97.8	79.7	47.5
Black	100.0	35.0	98.4	64.3	65.2
	Number of Covered Physician Services per Enrollee				
Whites	16.2	7.4	8.8	4.8	1.9
Black	17.5	7.4	10.1	3.7	4.7
	Number of Covered Physician Services per User				
Whites	19.0	25.6	10.6	7.1	4.8
Black	20.2	24.3	11.9	6.6	8.3
	Percent of All Covered Physician Services				
Whites	100.0	45.7	54.3	29.8	12.0
Black	100.0	42.1	57.9	21.0	26.8

Source: Current Medicare Survey, 1975, unpublished tabulations.

[1] These totals include services furnished to beneficiaries in nursing homes, their own homes, and other unspecified places not shown separately in these tabulations.

Beneficiaries With End-Stage Renal Disease (ESRD)

Beneficiaries with ESRD are heavy users of medical services. In fact, having ESRD is virtually synonymous with the need for and use of medical services. Because of this, the reader needs to bear in mind two aspects of the data presented for this group of beneficiaries:

1. Other reports concerning the use of Medicare benefits by specified beneficiary groups use enrollment as of July 1 of the year in question as the basis for computing service use rates. Because of the heavy use of services and the death rate among ESRD beneficiaries, the number of persons using services during the year could exceed the enrollment as of July 1. This situation occurred in 1975. On July 1, 1975, there were 20,917 ESRD beneficiaries under 65 years of age enrolled for SMI. As shown in Table 10, 21,200 beneficiaries with ESRD used hospital outpatient services. As noted earlier, the enrollment figure used in this report to compute rates is 25,635, which is the number of persons under 65 years of age with ESRD ever enrolled for SMI during the year 1975.[9]
2. A high proportion of ESRD beneficiaries make very heavy use of covered SMI services, particularly for renal dialysis. For persons with ESRD, renal dialysis represents the largest expenditure for ambulatory medical services. Medicare-covered outpatient renal dialysis services are available in hospital outpatient facilities and in facilities not affiliated with hospitals, which are generally referred to as "freestanding" renal dialysis centers. This report presents data only for the services obtained by ESRD beneficiaries in hospital outpatient facilities. In addition to the omission of data from the use of covered dialysis services in "freestanding" facilities, this report does not present data on the dialysis services used by program beneficiaries in the Veterans Administration (VA) facilities. Dialysis and other services furnished to Medicare beneficiaries by the VA are not reimbursed by Medicare.[10]

Because persons with ESRD use hospital outpatient services primarily for maintenance renal dialysis, the distribution of charges and services used by these persons differ considerably from other disabled enrollees. In providing care to these patients, dialysis, laboratory and radiological services, and drugs are important. Laboratory services are necessary to identify and control chemical imbalances that may occur during maintenance dialysis treatments. Radiological services are used to monitor and study the strength of the patient's bone structure, which becomes affected by the treatments. Certain drugs routinely used in the dialysis procedure are intended to be a part of the facility's dialysis charge. These drugs include heparin, protamine, mannitol, saline, glucose, dextrose, and antiarrhythmics. Other drugs are not routinely furnished as a part of the dialysis procedure, but may be medically necessary for some patients receiving dialysis. These items are billed separately and are part of the pharmacy charges shown in this report. Such drugs include antibiotics, analgesics, anabolics, sedatives, tranquilizers, and muscle relaxants.[11]

In 1975, the 21,200 disabled ESRD users of hospital outpatient services (827 per 1,000 ever enrolled) incurred charges totaling $134 million dollars, for which Medicare reimbursed $104 million (Table 10). This $104 million represents about 35 percent of the total Medicare reimbursement for this group of beneficiaries (compared to 3.5 percent for disabled persons without ESRD). Of these 21,200 ESRD users, 14,820, or 70 percent of them, were entitled to Medicare under Section 299I of the 1972 Amendments. The remaining 6,380 disabled ESRD users of services were entitled to Medicare benefits because they had been receiving disability cash benefits for at least 24 consecutive months (dually entitled).

Relative to their presence in the general population, men and blacks were over-represented among ESRD beneficiaries. Almost 58 percent of the ESRD beneficiaries were men (who account for about 49 percent of the general population), and about 26 percent of the persons of known race were black (who account for about 11 percent of the general population). Relative to total SMI enrollments among the disabled, the South is under-represented, providing only 29.5 percent of the ESRD beneficiaries, but constituting 37 percent of the total SMI enrollment among the disabled. By the same measure all the other regions are over-represented among the ESRD beneficiaries.

The costliness of providing medical services to persons with ESRD is shown by the charges incurred for hospital outpatient services alone. The national average per user is almost $6,300 for hospital outpatient services, of which Medicare reimbursed over $4,900. As we noted previously, this amount represents only a fraction of the program payments that would be made on behalf of a patient undergoing regular dialysis. Payment for charges not reimbursed by Medicare comes from diverse sources. Workers and dependents of employed workers may be covered under insurance policies provided under employer-employee agreements. Medicare supplementation plans pay for charges for covered services which are not paid by Medicare. State Medicaid plans pay for services

[9] Using the number ever enrolled as the basis for computing the average charges incurred or amount reimbursed underestimates the actual number because of deaths during the year. Using enrollment as of July 1 would overestimate the actual experience. Ideally, the enrollment for computing rates and averages should be based on the equivalent person-years of enrollment in the program during the year. This process requires knowing the number of months each beneficiary was alive during the year and dividing by twelve. This information was not available at the time this paper was written.

[10] The reader should bear in mind that dialyses are required about three times weekly, and the usual covered charge per dialysis for Medicare beneficiaries was $150. Total annual charges for a full-time user of dialysis services would have been $23,400. The annual figures in this report are understated because some users of hospital outpatient facilities may not be regular users. Disabled military veterans may place primary reliance on Veterans Administration facilities (which, as noted, are not reimbursed by the Medicare program) and used Medicare-covered facilities only when away from their normal residence. Some persons may be receiving dialysis services in non-hospital facilities (for example, freestanding dialysis centers) and may have used hospital outpatient services for reasons not directly related to dialysis. Also, the average charges per beneficiary may be understated because some beneficiaries may have been eligible for benefits for only part of the year, but are counted as "ever enrolled."

[11] Refer to the Health Care Financing Administration Part A Intermediary Letter No. 79-27, and Part B Intermediary Letter No. 79-25.

TABLE 10

Use of Hospital Outpatient Services by Disabled Persons With End-Stage Renal Disease and Persons Eligible Solely Because of End-Stage Renal Disease: Users, Charges, and Reimbursement by Sex, Race, and Region, 1975

Sex, Race, and Region	Ever enrolled SMI	Users		Charges			Reimbursement			
		Number	Per 1,000 Beneficiaries	Amount (In Thousands)	Per User	Per Beneficiary	Amount (In Thousands)	Per User	Per Beneficiary	As Percent of Charges
All Persons	25,635	21,200	827.0	$133,504	$6,297	$5,208	$104,206	$4,915	$4,065	78.1
2991 Eligibles[1]	15,900	14,820	932.1	94,936	6,386	5,952	74,078	4,999	4,660	78.3
Sex										
Men	14,805	12,020	811.9	75,874	6,312	5,125	59,244	4,929	4,002	78.1
Women	10,830	9,180	847.7	57,630	6,278	5,322	44,961	4,898	4,152	78.0
Race[2]										
White	17,435	14,440	828.2	90,644	6,277	5,199	70,989	4,916	4,071	78.3
Black	6,051[3]	4,960	819.7	33,678	6,790	5,566	26,030	5,248	4,302	77.3
Region[4]										
Northeast	6,527[5]	5,160	790.6	31,717	6,147	4,860	24,720	4,791	3,788	77.9
North Central	6,031[5]	5,560	921.9	40,883	7,353	6,779	31,822	5,723	5,276	77.8
South	7,218[5]	5,420	750.9	26,757	4,937	3,707	20,560	3,793	2,848	76.8
West	4,685[5]	4,000	853.8	30,145	7,536	6,434	23,971	5,993	5,117	79.5

[1] Demographic details are not shown separately.
[2] Excludes unknown and other races included in totals.
[3] Estimated from unpublished tabulations.
[4] Excludes unknown residence and outlying areas and foreign countries included in totals.
[5] Estimated from unpublished tabulations.

on behalf of persons who meet State eligibility criteria. A few States have special programs specifically designed to help meet the high medical expenses involved in the treatment of renal disease. Disabled military veterans eligible for Medicare benefits may be receiving dialysis services at Veterans Administration facilities. These services are not billed to the Medicare program. However, when veterans are away from their normal residence (for example, when on vacation) short-term arrangements may be made for dialysis service in hospital facilities; these costs are billed to the Medicare program.

Charges incurred by sex and race for hospital outpatient services were not significantly different (Table 10). However, there was a rather wide range among regions in the average charges incurred and the average amounts reimbursed by Medicare. The North Central and Western regions were the highest in these measures, while the South lagged significantly. The lower use rate in the South may reflect greater use of freestanding dialysis centers which are not included in this report. Lower charges per user in the South may reflect a lower charge structure for services.

Most of the hospital outpatient charges incurred by ESRD patients are for dialysis services. As shown in Table 11, almost 85 percent of the persons with ESRD who used hospital outpatient services received dialysis and other services.[12] These services accounted for 88 percent of the charges incurred. Laboratory, radiology, and pharmaceutical services were other major expenses incurred by ESRD patients.

Conclusions

Disabled beneficiaries made significant use of the outpatient benefits available under Medicare. In 1975, about 27 percent of the disabled beneficiaries without ESRD who were enrolled under SMI incurred charges for hospital outpatient services. The average total incurred charge per user was $131. Disabled beneficiaries with ESRD make even heavier use of the Medicare outpatient benefit, mainly for renal dialysis services. The Medicare program reimbursed hospitals almost $5,000 per user for hospital outpatient services used by persons with ESRD.

[12] HCFA-1483, the form used to bill for hospital outpatient services (Appendix A), does not contain a specific entry for dialysis services. Accordingly, the charges for dialysis services are noted as "other." For ESRD beneficiaries, most of the charges noted under "other" are for dialysis services. In addition, not all ESRD patients who may have used hospital outpatient services need to have received dialysis services. Many dialysis centers are not operated as part of a hospital's outpatient facilities. These are called "freestanding" dialysis centers.

TABLE 11

Use of Hospital Outpatient Services by Disabled Persons With End-Stage Renal Disease and Persons Eligible Solely Because of End-Stage Renal Disease: Users and Charges by Type of Service, 1975[1]

Type of Service	Users			Charges			
	Number	Percent of Users	Per 1,000 Beneficiaries	Amount (In Thousands)	Percent	Per User	Per Beneficiary
Total[2]	21,200	100.0	827.0	$133,504	100.0	$6,297	$5,208
Clinic	4,780	22.5	186.5	422	.4	109	20
Emergency	6,460	30.5	252.0	385	.3	60	15
Laboratory	17,680	83.4	689.7	11,453	8.6	648	447
Radiology	12,640	59.6	493.1	1,390	1.0	110	54
Pharmacy	9,060	42.7	353.4	1,649	1.2	182	64
Physical therapy	1,660	7.8	64.8	503	.4	303	20
Dialysis and other	17,940	84.6	699.8	117,602	88.1	6,555	4,587

[1] Many of the rates and averages in this table have relatively high standard errors and should, therefore, be used for rough comparisons only. For an explanation of the meaning and use of standard errors, the user is referred to Appendix B.
[2] Based on persons ever enrolled.

This report shows that disabled blacks, particularly those who live in metropolitan areas, used the clinic and emergency room services available in hospital outpatient departments more than whites did. The same phenomenon was also noted among the aged Medicare beneficiaries.[13] The difference by race in the use of these hospital outpatient services appears to reflect a basic difference in the sources from which ambulatory medical services were received. Most ambulatory physician services used by disabled whites were received in physicians' offices. Disabled blacks received most of their ambulatory physician services in hospital outpatient departments. Thus, the reported difference between the races in the use of hospital outpatient clinic and emergency room services appears to reflect a greater general reliance of blacks in metropolitan areas on institution based medical services and, more specifically, on the clinics for primary medical care services. The extent to which these patterns of use of hospital outpatient and physician services may reflect beneficiary income, residential patterns, charges, complementary insurance coverages, health care needs, the organization of local health services delivery systems, and other social and economic factors was beyond the scope of this report.

Beneficiaries with ESRD used hospital outpatient services primarily for the expensive and life-prolonging renal dialysis services. As the program succeeds in providing ESRD patients access to the services required to stay alive, and as treatment becomes more effective in maintaining life, the increasing number of ESRD patients will constitute a major continuing cost to the Medicare program. Unless the costs of renal dialysis are reduced or other and less expensive treatments for kidney failure are developed, the program will generate its own expenditure escalation.

[13] For more information, see Ruther and Silverman, *Op. cit.*

APPENDIX A

PROVIDER BILLING FOR MEDICAL AND OTHER HEALTH SERVICES

MEDICAL INSURANCE BENEFITS—SOCIAL SECURITY ACT

Form Approved
OMB No. 066-R-0017

This report is authorized by 42 USC 1395n; 42 CFR 405. 1660. Your cooperation is needed to keep proper Beneficiary Records and to make proper Medicare Payments.

NOTICE: Anyone who misrepresents or falsifies essential information requested by this form may upon conviction be subject to fine and imprisonment under Federal law.

1. Patient's last name	First name	MI	2. Health insurance claim number	
3. Patient's address *(Street number, City, State)*		Zip Code	4. Date of birth	5. Sex ☐ M ☐ F
6. Provider name and address *(City and State)*	7. Provider number		9. Type of service A. ☐ Inpatient B. ☐ Outpatient C. ☐ Other *(Specify)*	
	8. Medical record number			

If any of your medical expenses may be paid by your insurance organization or State Agency, complete Items 10 and 11. If you do not want information about this Medicare claim released to your insurance organization, check this block ☐

10. Name and address of organization or agency	11. Policy or identification number

12. Patient's Certification, Authorization to Release Information, and Payment Request. I certify that the information given by me in applying for payment under Title XVIII of the Social Security Act is correct. I authorize any holder of medical or other information about me to release to the Social Security Administration and/or the Medicare Program or its intermediaries or carriers or to the Professional Standards Review Organizations any information needed for this or a related Medicare claim. I request that payment of authorized benefits be made on my behalf.

Signature *(Patient or authorized representative) (Signature by mark must be witnessed)*	☐ Contained in provider's record	Date

13. Nature of illness or injury Employment Related and/or Entitlement to Other Government Programs *(If Yes, Give Name and Address of Employer and/or Program)* ☐ Yes ☐ No	Do not use this space
14. Surgical procedures	

15. Statement of services	Covered Charges		16. Statement Covers Period	First service	Last service
A. Clinic visit ( )					
B. Emergency room ( )			17. Blood Information	A. Pints furnished / B. Pints replaced / Not Replaced: C. Pints / D. Charge per pint / E. Patient paid for deductible	
C. Laboratory					
D. Radiology			18. Professional component (hospital inpatients)		19. Other professional component
E. Pharmacy			A. Pathology	B. Radiology	
F. Blood			20. Date benefits exhausted or HH plan terminated		21. Patient paid (Excluding 17E)
G. Ambulance			22. I certify that the required physician's certification is on file.		23. Date received
H. Physical therapy			FOR INTERMEDIARY USE ONLY		
I. Other *(Specify)*			24. Verified Patient Liability		
			A. Blood deductible	B. Cash deductible	C. Coinsurance
			25. Payment Distribution		26. Date approved
			Provider	Patient	
J. TOTAL					

Remarks:

Appendix B

Sources and Limitations of Hospital Outpatient Data

The data in this publication are derived from hospital outpatient bills submitted for a 5 percent sample of the disabled persons enrolled under SMI. The sample data were then multiplied by a factor of 20 to yield the total estimates. Therefore, the totals differ from that of a 100 percent count. Appendix A shows the bill forrn used for outpatient services (HCFA-1483).[1]

Data for 1975 are from bills for services performed in that year which were recorded in HCFA's central records as of December 1976. Reimbursement data for hospital outpatient services shown in this report are based on interim payments. These data may be adjusted following the end of the accounting year based on an audit of cost reports.

Enrollment statistics for age, sex, and residence of beneficiaries without ESRD are based on the number of persons enrolled as of July 1, 1975. Data for the number of black beneficiaries are based on a 5 percent sample of the enrollment file. User rates for persons with ESRD are based on persons enrolled at any time during the year.

Reliability of Estimates for Outpatient Hospital Data[2]

Data in this report are estimates based on a 5 percent sample of SMI enrollees, and hence are subject to sampling variability. Tables B-1 through B-7 show approximate standard errors for most of the estimates in this report. The standard error is primarily a measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the whole population is used. To calculate standard errors at a reasonable cost, approximate methods were used. Thus, use these tables only as indicators of the order of magnitude of the standard errors for specific estimates. In general, because the estimates in this paper are based on fairly small populations, estimates for small subgroups and percentages of means with small bases tend to be relatively unreliable.

[1] Non-hospital services billed on the HCFA-1483 include non-hospital outpatient physical therapy services, outpatient services furnished to inpatients when their inpatient benefit days are exhausted, and rural health clinics.

[2] Prepared by James Beebe, Statistical and Research Services Branch, Division of Economic Analysis, Office of Research.

TABLE B-1

Approximate Standard Error for Estimated Number of Disabled Users of Services: With and Without End-Stage Renal Disease

(68 chances out of 100)

Estimated Number of Users	Standard Error of Estimate
1,000	140
3,000	240
5,000	310
10,000	440
30,000	750
50,000	970
100,000	1,400
300,000	2,400
500,000	3,000
1,000,000	4,300
3,000,000	7,000
5,000,000	8,600

TABLE B-2

Approximate Standard Error of Estimated Charges and Reimbursement of Disabled and End-Stage Renal Disease Beneficiaries

(68 chances out of 100)

Estimated Charges or Reimbursement	Standard Error	
	Disabled	ESRD
$1,000	$970	NA
3,000	2,900	NA
5,000	4,900	NA
10,000	9,700	NA
30,000	17,000	NA
50,000	23,000	NA
100,000	33,000	NA
300,000	59,000	$260,000
500,000	78,000	330,000
1,000,000	110,000	480,000
3,000,000	220,000	870,000
5,000,000	290,000	1,200,000
10,000,000	450,000	1,700,000
30,000,000	880,000	3,100,000
50,000,000	1,200,000	4,000,000
100,000,000	1,800,000	5,600,000
300,000,000	3,000,000	8,400,000
500,000,000	3,000,000	NA

NA—Not applicable.

TABLE B-3

Approximate Standard Error of Estimated Visits of Disabled Beneficiaries

(68 chances out of 100)

Estimated Visits	Standard Error of Estimate
50	49
100	97
300	220
500	280
1,000	400
3,000	700
5,000	910
10,000	1,300
30,000	2,300
50,000	2,900
100,000	4,200
300,000	7,500
500,000	9,900
1,000,000	14,000
3,000,000	24,000

TABLE B-4

Approximate Standard Error of Estimated Charges or Reimbursement per User or per Disabled Beneficiary

(68 chances out of 100)

Number of Users in Base	Estimated Charges or Reimbursement							
	$20	$40	$60	$80	$100	$120	$140	$160
1,000	$14	$20	$25	$29	$33	$36	$39	$42
3,000	8.3	12	15	17	20	22	24	25
5,000	6.5	9.5	12	14	16	17	19	20
10,000	4.7	6.9	8.6	10	11	13	14	15
30,000	2.9	4.2	5.3	6.3	7.2	8.0	8.9	9.5
50,000	2.3	3.4	4.3	5.1	5.9	6.5	7.2	7.8
100,000	1.7	2.6	3.3	3.9	4.5	5.0	5.5	5.9
300,000	1.1	1.7	2.1	2.5	2.9	3.3	3.6	3.9
500,000	.89	1.4	1.8	2.1	2.4	2.7	2.9	3.2
1,000,000	.68	1.0	1.3	1.6	1.8	2.0	2.1	2.3
3,000,000	.44	.66	.81	.92	1.0	1.1	1.3	1.3
5,000,000	.36	.51	.61	.73	.83	.93	NA	NA

NA—Not applicable.

TABLE B-5

Approximate Standard Error for Estimated Charges per Visit of Disabled Beneficiaries

(68 chances out of 100)

Number of Visits in Base	Charges per Visit					
	$5	$10	$15	$20	$25	$30
50	$24	$31	$36	$40	$43	$46
100	17	22	26	28	31	33
300	10	13	15	16	18	19
500	7.8	10	12	13	14	15
1,000	5.5	7.2	8.2	9.1	9.9	11
3,000	3.2	4.2	4.9	5.4	5.9	6.3
5,000	2.5	3.3	3.8	4.2	4.6	5.0
10,000	1.8	2.4	2.8	3.1	3.4	3.6
30,000	1.1	1.4	1.7	1.9	2.1	2.2
50,000	.85	1.1	1.3	1.5	1.7	1.8
100,000	.62	.85	1.0	1.1	1.3	1.4
300,000	.39	.54	.66	.75	.83	.91
500,000	.31	.44	.54	.62	.69	.76
1,000,000	.24	.34	.42	.49	.54	.59
3,000,000	.16	.23	.29	.33	.37	.40

TABLE B-6

Approximate Standard Error of Estimated Reimbursement as a Percent of Charges for Disabled Beneficiaries

(68 chances out of 100)

Amount of Charges in Base (in Thousands)	Reimbursement as a Percent of Charges			
	40%	50%	60%	70%
$ 50	10	9.6	8.6	7.6
100	7.3	6.7	6.0	5.3
300	4.1	3.8	3.4	3.1
500	3.2	2.9	2.6	2.4
1,000	2.2	2.0	1.8	1.7
3,000	1.2	1.1	1.0	.98
5,000	.91	.86	.81	.77
10,000	.63	.59	.57	.55
30,000	.48	.47	.45	.44
50,000	.45	.43	.41	.36
100,000	.34	.32	.30	.27
300,000	.25	.23	.21	.18
500,000	.17	.16	.14	.13

TABLE B-7

Approximate Standard Error of Estimated Charges or Reimbursement per User or per ESRD Beneficiary

(68 chances out of 100)

Number of Users in Base	Estimated Charges or Reimbursement									
	$60	$100	$300	$600	$1,000	$4,000	$5,000	$6,000	$7,000	$8,000
1,000	NA	NA	256	369	480	1,000	1,200	1,300	1,400	1,500
3,000	NA	85	152	221	290	630	710	780	850	920
5,000	58	67	120	175	230	500	560	620	670	720
7,000	58	57	100	150	200	430	480	530	570	610
9,000	58	51	92	134	180	380	430	470	500	540
11,000	58	46	84	122	160	350	390	420	450	480
13,000	58	43	78	114	150	320	350	390	410	430
15,000	58	40	73	107	140	300	330	360	380	400
17,000	53	38	69	101	130	280	310	330	350	360
19,000	58	36	65	96	130	260	290	310	320	330
21,000	58	34	63	92	120	250	270	290	300	310

NA—Not Applicable.

Appendix C

Sources and Limitations of Current Medicare Survey Data

The Current Medicare Survey (CMS) used a two-stage probability sample design. The sample represented all disabled medical insurance enrollees in the 50 States and the District of Columbia. The first-stage sample consisted of "primary sampling units" (PSUs). Each PSU consisted of a standard metropolitan statistical area (SMSA), a single county or several adjacent counties. Within these first-stage units, a systematic sample of persons was selected from a digital sample of persons enrolled in the medical insurance program. The selection of this digital sample was based on the last digit of the health insurance claim number.

For the CMS, sample persons were selected for interviews starting in October of each year and remained in the survey for 15 months. A 15-month cycle was used because any covered medical expenses incurred by an individual in the last 3 months of a calendar year which are applied to the deductible for that year may be carried over and applied to the deductible for the next calendar year.

Data from these sample persons were collected through monthly personal interviews conducted by the Bureau of the Census. The interviews provided information about the use of medical care and related services during the preceding month.

Reliability of CMS Estimates[1]

Since the CMS estimates are based on a sample of enrolled persons, they may differ somewhat from the figures that would have been obtained if the same data had been collected for the entire universe of enrolled persons using the same collection procedures. The data may also differ from the results of statistical compilation of data from the administrative records. As in any data collection, the results are subject to errors of response, reporting, processing, and sampling variability.

The estimates developed from the CMS are based in part on the memory or knowledge of each respondent. The memory factor in data derived from field surveys probably produces underestimates, because the tendency is to forget minor or irregular items. On the other hand, the recall factor is aided by successive visits to the same sample enrollees and the use of a diary form left with the enrollee. As the enrollee uses any medical service, he is encouraged to record information about this service on the diary form. The successive visits also may have provided a basis for greater understanding of procedures involved in program participation, which may also affect the estimates derived from this survey. Some errors may also result from misunderstanding of the scope of the program's coverage.

The standard error is primarily a measure of sampling variability, that is, of the variations that occur by chance because a sample rather than the whole universe was used. As calculated for this report, the standard error also partially measures the effect of response errors but does not measure any systematic biases in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from the result for the entire universe, with the same procedures and methods used, by less than the standard error. Chances are about 95 out of 100 that the differences would be less than twice the standard error. Chances are about 99 out of 100 that the differences would be less than 2½ times the standard error.

The generalized tables of standard errors of numbers of persons and medical services shown in this appendix provide an indication of the magnitude of the standard errors rather than the standard error of any specific estimate. For ease in some uses of the data, the relative variance of each estimate is also shown. This coefficient is simply the estimated variance divided by the square of the estimate.

[1] Prepared by Robert Mitchel, Statistical and Research Services Branch, Division of Economic Analysis, Office of Research.

To derive standard errors that would be applicable to the wide variety of items presented and that could be prepared at moderate cost, a group of items was selected for which approximations to the standard errors have been estimated. It is possible to generalize the standard errors of the estimated number of enrolled persons having various program or demographic characteristics. Similarly, it has been possible to generalize the standard errors of estimates and for medical services.

Table C-1 may be used for approximate standard errors of the estimated number of enrollees with various program or demographic characteristics. Table C-2 contains approximate standard errors of estimated number of physician services rendered outside of the inpatient hospital setting. Table C-1 is for percentages (the reliability of an estimated percentage depends on both the size of the percentage and its denominator). The enrollment figures used for CMS computations were: 1,880,500 whites, and 330,100 blacks. These figures represent persons enrolled at any time during the year.

Examples of Computations of Standard Errors

Use linear interpolation to estimate standard errors of numbers not presented specifically in the tables. Illustration: The CMS table in the text (Table 9) shows disabled white enrollees used 3,666,200 SMI-covered physician services in hospital outpatient departments during 1975. Table C-2 illustrates:

Estimate	Standard Error
2,000,000	400,000
5,000,000	700,000

Linear interpolation indicates that the standard error sought is approximately 566,600. We may be 68 percent confident that SMI-covered physician services to white beneficiaries in hospital outpatient departments were between 3,099,600 and 4,232,800.

Standard Error of Percentages

To determine the standard error of a percentage use Table C-3. Illustration: As shown in the CMS data table, an estimated 12.0 percent of SMI-covered physician services to disabled white beneficiaries were furnished in hospital outpatient departments. The denominator, all SMI-covered physician services, for white beneficiaries was 30,524,900. By reading and interpolating in Table C-3 we calculate that an estimated 12.0 percent with a denominator of 30,524,900 services has a standard error of 1.9 percent. Thus, a 68 percent confidence interval for the percent of physician services received by white disabled beneficiaries in hospital outpatient departments in 1975 was 10.1 to 13.9 percent.

Standard Error of Averages

To estimate the standard error of an average, multiply the average by the square root of the sum of the relative variances of the average's numerator and denominator. For example: The CMS table illustrates that white disabled beneficiaries who used SMI-covered physician services in hospital outpatient departments received an average of 4.8 services—that is 3,666,200 services divided by 762,300 persons served. Table C-2 shows the relative variance of 3,666,200 is about .0286, while in Table C-1, the relative variance of 762,300 is about .0020. Multiplying the average (4.8) times the square root of the sum of .0286 and .0020 yields a standard error of about .8 services. Thus, there is a 68 percent confidence interval of 4.0 to 5.6 SMI-covered physician services per person.

Standard Error of Differences

To estimate the standard error of the difference of any two estimates (A-B, where A and B are estimates of totals, averages, percentages, and the like etc.) calculate the square root of the sum of the squares of the standard errors of the two estimates. In symbols, the estimated standard error of A-B is:

$$SE_{A-B} = \sqrt{SE_A^2 + SE_B^2}$$

For example, as shown in the CMS data table, an estimated 26.8 percent of the covered physician services used by disabled black beneficiaries were received in hospital outpatient departments. The corresponding figure for white beneficiaries was 12.0 percent. The difference is calculated as A-B = 26.8 - 12.0 = 14.8 percent. The standard error of A is 5.7 percent and the standard error of B is 1.9 percent (see example for Standard Error of Percentages). The standard error of A-B is therefore computed as:

$$SE_{A-B} = \sqrt{(5.7)^2 + (1.9)^2}$$

The 68 percent confidence interval is given as 8.6 to 21.0 percent (that is, 14.8 ± 6.2).

TABLE C-1

Approximate Standard Error and Relative Variance of Estimated Number of SMI Beneficiaries Having Various Program or Demographic Characteristics

(68 chances out of 100)

Size of Estimate (in Thousands)	Standard Error (in Thousands)	Relative Variance
20	5	0.0625
50	7	.0196
100	10	.0100
200	15	.0056
500	25	.0025
1000	40	.0016
2000	60	.0009

TABLE C-2

Approximate Standard Error and Relative Variance of Estimates of SMI-covered Physician Services Outside of Inpatient Hospital Setting

(68 chances out of 100)

Size of Estimate (in Millions	Standard Error (in Millions)	Relative Variance
2	.4	.0411
5	.7	.0196
10	.9	.0081
20	1.3	.0042
50	2.0	.0016

TABLE C-3

Approximate Standard Error of Estimates of Percentage Based on Persons or Services

(68 chances out of 100)

Type of Estimate	Denominator of Percentage								
Beneficiaries (in Thousands)	—	—	20	50	100	200	500	1000	2000
SMI-covered Physician Services Outside of Inpatient Hospital Setting (in Millions)	—	—	2	5	10	20	50	—	—
Estimated Percentage	**Standard Error of Percentage**								
2 or 98	5.9	4.6	3.1	2.0	1.4	1.0	.6	.4	.3
5 or 95	9.3	7.2	4.9	3.1	2.2	1.5	1.0	.7	.5
10 or 90	12.7	9.9	6.7	4.2	3.0	2.1	1.3	.9	.7
25 or 75	18.4	14.4	9.7	6.1	4.3	3.1	1.9	1.4	1.0
50	21.2	16.6	11.2	7.1	5.0	3.5	2.2	1.6	1.1

*U.S. GOVERNMENT PRINTING OFFICE : 1981 0-720-018/4493

Health Care Financing Program Statistics

U.S. Department of Health and Human Services
Richard R. Schweiker, **Secretary**

Health Care Financing Administration
Carolyne K. Davis, **Administrator**

Office of Research, Demonstrations, and Statistics
James M. Kaple, **Acting Director**

Jean LeMasurier, **Director, Program Planning and Support**

Karen Pelham O'Steen, **Research Publications Coordinator**

Donna L. Eskow, **Writer-editor**
Carol J. Pianalto, **Writer-editor**
Alice L. Young, **Writer-editor**
Cynthia Dingle, **Editorial Assistant**

Send changes of address or requests for this publication to: ORDS Publications, Rm 1E9 Oak Meadows Building, 6340 Security Blvd., Baltimore, MD 21235.

DEPARTMENT OF
HEALTH AND HUMAN SERVICES
HEALTH CARE FINANCING ADMINISTRATION
BALTIMORE, MARYLAND 21207

CMS LIBRARY
3 8095 00011826 1

U.S. Department of
Health and Human Services
Health Care Financing Administration
HHS Publication
HCFA Pub. No. 03092
May 1981